

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/737,234	12/14/2000	James R. Moran	12598.0128.NPUS00 8345 SOLU:12		
75	90 03/22/2002				
Craig M. Lundell, Esq. HOWREY, SIMON, ARNOLD & WHITE, LLP PO Box 4433			EXAMINER		
			FERGUSON, LAWRENCE D		
Houston, TX	77210-4433		ART UNIT	PAPER NUMBER 12	
			1774		
			DATE MAILED: 03/22/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.  O9/737,234  Examiner  Art Unit  Lawrence D Ferguson  7774  Art Unit  Lawrence D Ferguson  7774  Art Unit  Lawrence D Ferguson  7774  Art Unit  1774  Art Unit  1774  As HORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  THE MAILING DATE OF THIS COMMUNICATION.  1 Exercises of time may be available under the provisions of 37 CFR 1.135(a). In no event, however, may a reply be timely filed after StX (6) MONTH5 from the mailing date of this communication.  1 If the period for reply specified above, the maximum statutory priorid will apply advil advil Royal Hart Part (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)					AS-12				
Examiner  Lawrence □ Ferguson  - The MAILING DATE   this communication appears on the cover sheet with th    - The MAILING DATE   this communication appears on the cover sheet with th    - The MAILING DATE   this communication appears on the cover sheet with th    - The MAILING DATE   This communication appears on the cover sheet with th    - The MAILING DATE   This communication    - AN Extensions of time may be available under the provisions of 37 CPR 1.136(e). In no event, however, may a reply be timely filed other is/(6) MONTHS from the malting date of this communication.  - If the period for reply specified above is less than thirty (20) days, a reply with the ateutory minimum of thirty (30) days will be considered timely.  - If the period for reply specified above is less than thirty (20) days, and will explice 31 (this period to the period of the communication of this communication or period with the activation and the period to the period by the College 1 (this communication).  - Failure to reply whith the act or adended period for reply will by statular, caused the application from the mailing date of this communication, even if timely filed, may reduce any samed plant term adjustment. See 37 CFR 1.704(b).  Status  1)		Application	n No.	Applicant(s)					
Lawrence D Ferguson   1774    The MAILING DATE   fthis communication appears on the cover sheet with the correspondence address  Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to raply within the stat or extended period for reply with, by statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to raply within the stat or extended period for reply with, by statutor, period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to raply within the stat or extended period for reply with, by statute, cause the application to become ABANCONED (33 to 35.3).  - Any reply received by the office later fairs the mailing date of this communication, over if timely filed, may reduce any sentence and the mailing date of this communication, over if timely filed, may reduce any sentence and the mailing date of this communication.  - Pailure to raply within the statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Pailure to raply within the statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Pailure to raply supplied the maximum statute, and the statute of the supplied six of the statute of the supplied six of the supplied of the supplied six of the supplie	Office Retion Summan		<b>.</b>						
The MAILING DATE If this communication appears on the cover sheet with the correspondence address Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CPR 1.136(a). In no event, however, may a reply be timely filed after \$510,00 MONTHS from the mailing date of this communication.  - If the period for reply specified above, the maximum statutory period val apply and will expire \$510,00 MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply vill, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than these months after the mailing date of this communication, even if timely filed, may reduce any samed patent term adjustment. See 37 CFR 1.704(b).  Status  1) Responsive to communication(s) filed on  2a) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) is/are allowed.  6) Claim(s) is/are objected to.  3) claim(s) is/are objected to.  3) the proposed drawing is/are: a) accepted or b) objected to by the Examiner.  Application Papers  9) The proposed drawing correction filed on is/approved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	Office Action Summary	Examiner		Art Unit					
Period for Reply  A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply seciled above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  If NO period for reply is specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  If NO period for reply sispecified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  If NO period for reply sispecified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication to become ABANCONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status  1) Responsive to communication(s) filed on  2a) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) 1-28 is/are allowed.  6) Claim(s) 1-28 is/are allowed.  6) Claim(s) 1-28 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) is/are objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a	The MAN INC DATE. Ashin communication on			J					
THE MAILING DATE OF THIS COMMUNICATION.  Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  If the period for reply is specified above is less than thirty (30) days, a reply within the statutory principularly within the statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later han Three monities after the mailing date of this communication, even if timely filed, may reduce any seamed patent term adjustment. See 37 CFR 1.704(b).  Status  1) Responsive to communication(s) filed on  2a) This action is FINAL. 2b) This action is non-final.  3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) 1-28 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved by lisapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	·								
2a)  This action is FINAL. 2b)  This action is non-final.  3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)  Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) 1-28 is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4) Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) Claim(s) is/are allowed.  6) Claim(s) 1-28 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	1) Responsive to communication(s) filed on	·							
closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims  4)  Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5)  Claim(s) is/are allowed.  6)  Claim(s) 1-28 is/are rejected.  7)  Claim(s) is/are objected to.  8)  Claim(s) are subject to restriction and/or election requirement.  Application Papers  9)  The specification is objected to by the Examiner.  10)  The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	2a) ☐ This action is <b>FINAL</b> . 2b) ☑ T	his action is n	on-final.						
A) □ Claim(s) 1-28 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  5) □ Claim(s) is/are allowed.  6) □ Claim(s) 1-28 is/are rejected.  7) □ Claim(s) is/are objected to.  8) □ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) □ The specification is objected to by the Examiner.  10) □ The drawing(s) filed on is/are: a) □ accepted or b) □ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) □ The proposed drawing correction filed on is: a) □ approved b) □ disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.					merits is				
4a) Of the above claim(s) is/are withdrawn from consideration.  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-28 is/are rejected.  7) ☐ Claim(s) is/are objected to.  8) ☐ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.									
5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 1-28 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) ☐ The specification is objected to by the Examiner.  10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) ☐ The proposed drawing correction filed on is: a) ☐ approved b) ☐ disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	4) Claim(s) 1-28 is/are pending in the application	n.							
6) Claim(s) 1-28 is/are rejected.  7) Claim(s) is/are objected to.  8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	4a) Of the above claim(s) is/are withdrawn from consideration.								
7) Claim(s) is/are objected to. 8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	5) Claim(s) is/are allowed.								
8) Claim(s) are subject to restriction and/or election requirement.  Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.									
Application Papers  9) The specification is objected to by the Examiner.  10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.	7) Claim(s) is/are objected to.								
<ul> <li>9) The specification is objected to by the Examiner.</li> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</li> <li>11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.</li> </ul>	• • • • • • • • • • • • • • • • • • • •	or election red	quirement.						
<ul> <li>10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).</li> <li>11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.</li> </ul>	··· <u> </u>								
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.									
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  If approved, corrected drawings are required in reply to this Office action.									
If approved, corrected drawings are required in reply to this Office action.									
12) The oath or declaration is objected to by the Examiner.									
Pri rity under 35 U.S.C. §§ 119 and 120									
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).									
a) ☐ All b) ☐ Some * c) ☐ None of:									
1. Certified copies of the priority documents have been received.									
2. Certified copies of the priority documents have been received in Application No									
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).									
* See the attached detailed Office action for a list of the certified copies not received.									
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).									
<ul> <li>a) ☐ The translation of the foreign language provisional application has been received.</li> <li>15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</li> </ul>									
Attachment(s)									
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8 4) Interview Summary (PTO-413) Paper No(s). 5) Notice of Informal Patent Application (PTO-152) 6) Other:	2) Notice of Draftsperson's Patent Drawing Review (PTO-948)		5) 🔲 Notice of Informal						

Application/Control Number: 09/737,234 Page 2

Art Unit: 1774

### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103(a)

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-6, 9-12, 14-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being obvious over Frost et al. (U.S. 5,932,329).
- 3. Frost discloses a laminated glass pane comprising two glass sheets and a transparent support film having an infra red surface coating with two adhesive layers, the first adhesive layer having a thickness of about 50 um and the second adhesive layer having a thickness of 0.76 mm (abstract). Frost discloses a support film 50 um thick of polyethylene terephthalate (column 2, lines 32-34) along with a first adhesive layer joining the support film to the glass sheet is of thermoplastic polyvinyl butyral and the second adhesive layer is also of thermoplastic polyvinyl butyral (column 2, lines 37-42). The reference does not teach the exact thickness of the polyethylene terphthalate sheet or first adhesive layer. Thickness is optimizable. It would have been obvious to one of ordinary skill in the art to optimize the components because discovering an optimum or workable range is of routine skill in the art. Although the reference does not teach a temperature transition or maximum flex modulus, it would have been obvious to one of

Application/Control Number: 09/737,234

Art Unit: 1774

ordinary skill in the art to include these features because Frost teaches the same materials having the same function as applicants claimed invention.

# Claim Rejections – 35 USC § 103(a)

- 4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being obvious over Frost et al. (U.S. 5,932,329) in view of Chaussade et al (U.S. 5,227,241).
- 5. Frost is relied on for claims 1-6, 9-12, 14-24 and 26-28. Frost does not disclose three layers of plasticized polyvinyl butryal sheet. Chaussade teaches a laminated glass comprising a first, second and third poly vinyl butryral insert layers (column 3, lines 19-20 and lines 61-64). Chaussade teaches modulus of elasticity (column 3, lines 34-35). Although the secondary reference does not teach a temperature transition for the layers, it would have been obvious to one of ordinary skill in the art to include this feature because Chaussade teaches the same materials having the same function as applicants claimed invention. Frost and Chaussade are analogous art because they are from the same field of laminates. It would have been obvious to one of ordinary skill in the art to include the third layer of polyvinyl butryal in the laminate of Frost because Chaussade teaches the additional polyvinyl butryal layer helps increase the durability of the laminate. Although neither reference teaches plasticized polyvinyl alcohol adhesive, polyvinyl butryal is a form of polyvinyl alcohol, therefore it would have been obvious for the average artesian to include this component.

Page 3

Application/Control Number: 09/737,234 Page 4

Art Unit: 1774

## Claim Rejections - 35 USC § 103(a)

6. Claims 13 and 25 are rejected under 35 U.S.C. 103(a) as being obvious over Frost et al. (U.S. 5,932,329) in view of Benson, Jr. et al (U.S. 5,796,055).

7. Frost is relied upon for claims 1-6, 9-12, 14-24 and 26-28. Frost does not disclose an elastomeric sheet. Benson, Jr. teaches a sound absorbing article (column 1, line 7) made of laminated glass sheets (column 1, line 32) having a sheet of dampening material between the first and second intermediate sheets (column 12, lines 50-51). Although the reference does not explicitly teach that the damping material is elastomeric, it is well known in the art that damping elements are primarily comprised of elastomeric material. Frost and Benson, Jr. are analogous art because they are from the same field of laminated glass sheets. It would have been obvious to one of ordinary skill in the art to include the sheet of elastomeric dampening material in the laminated article of Frost because Benson, Jr. teaches the dampening material increases sound absorbsion of laminated articles.

#### Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Ferguson whose telephone number is (703) 305-9978. The examiner can normally be reached on Monday through Friday 8:30 AM – 4:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. Please allow the examiner twenty-four hours to return your call.

Application/Control Number: 09/737,234

Art Unit: 1774

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)

308-2351

Lawrence D. Ferguson

Examiner

Art Unit 1774

CYNTHIA H. KELLY SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 1700

Cintl H Kelly

Page 5